

**Amendments In the Claims**

Please add Claims 36 and 37. Please amend Claims 1, 4, 8, 12, 13, 16, 23, 24, 27, 30, and 33 as follows:

1. **(Currently Amended)** A method for transporting information over a network comprising:

decomposing an input datastream into a plurality of sub-streams, **wherein**  
**said decomposing comprises placing a selected portion of the input**  
**datastream into a selected one of a plurality of channels, and**  
**a sub-stream of said sub-streams comprises the selected portion of the**  
**input datastream;** and

communicating said sub-streams between a first network element and a second network element of said network by transporting each one of said sub-streams over **a corresponding** one of a plurality of channels, wherein a bandwidth of said input datastream is greater than a bandwidth **capacity** of any one of said channels.

2. (Original) The method of claim 1, wherein each of said channels is an optical channel.

3. (Original) The method of claim 2, wherein each of said optical channels corresponds to a wavelength.

4. **(Currently Amended)** The method of claim 1, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth **capacity** of a corresponding one of said channels.

5. (Previously Presented) The method of claim 1, further comprising: assembling said sub-streams into a reconstructed output datastream.

6. (Previously Presented) The method of claim 5, wherein said assembling comprises:  
 placing a portion of each of said substreams in a queue, wherein said reconstructed output datastream is output by said queue.

7. (Previously Presented) The method of claim 5, further comprising:  
performing protocol processing on said input datastream; and  
performing protocol processing on said reconstructed output datastream.
8. (Currently Amended) The method of claim 1, further comprising:  
performing compression on a one of said sub-streams, wherein  
said one of said sub-streams has a bandwidth greater than a bandwidth  
capacity of the corresponding selected one of said channels.
9. (Original) The method of claim 1, wherein said network is an existing  
network.
10. (Previously Presented) The method of claim 1, wherein  
said network comprises an underlying network infrastructure, and  
the method is performed without alteration of said underlying network infrastructure.
11. (Original) The method of claim 10, wherein said network comprises a fiber-  
optic system.
12. (Currently Amended) The method of claim 1, wherein said decomposition  
comprises:  
placing the [[a]] portion of said input datastream in one of a plurality of queues,  
wherein  
the queue each of said queues corresponds to the selected [[a]] one of said  
channels.
13. (Currently Amended) A method for receiving information transported over  
a network comprising:  
receiving a plurality of sub-streams, wherein  
said sub-streams are created by decomposing an input datastream into said  
sub-streams, wherein  
said decomposing comprises placing a selected portion of the input  
datastream into a selected one of a plurality of channels,  
and

**a sub-stream of said substreams comprises the selected portion of  
the input datastream,**

each of said sub-streams is transported over said network on **the [[a]] selected  
corresponding** one of **the [[a]]** plurality of channels, and  
a bandwidth of said input datastream is greater than a bandwidth **capacity** of  
any one of said channels; and  
assembling said sub-streams into a reconstructed output datastream.

14. (Original) The method of claim 13, wherein  
each of said channels is an optical channel.

15. (Original) The method of claim 14, wherein  
each of said optical channels corresponds to a wavelength.

16. **(Currently Amended)** The method of claim 13, wherein  
said each one of said sub-streams has a bandwidth that is equal to or less than a  
bandwidth **capacity** of said corresponding one of said channels.

17. (Original) The method of claim 13, wherein said assembling comprises:  
placing a portion of each of said substreams in a queue, wherein said reconstructed  
datastream is output by said queue.

18. (Previously Presented) The method of claim 13, further comprising:  
decomposing said input datastream into said sub-streams; and  
transporting said each of said sub-streams over said network on said corresponding  
one of a plurality of channels.

19. (Previously Presented) The method of claim 13, further comprising:  
performing protocol processing on said input datastream; and  
performing protocol processing on said reconstructed output datastream.

20. (Original) The method of claim 13, wherein said network is an existing  
network.

21. (Previously Presented) The method of claim 13, wherein said network comprises an underlying network infrastructure, and the method is performed without alteration of said underlying network infrastructure.
22. (Original) The method of claim 21, wherein said network comprises a fiber-optic system.
23. (Currently Amended) The method of claim 13, wherein said decomposition comprises:  
 placing **the selected** **[[a]]** portion of said input datastream in one of a plurality of queues, wherein  
 each of said queues corresponds to a one of said **plurality of** channels.
24. (Currently Amended) An apparatus for transporting information over a network comprising:  
 a first sub-stream management device, comprising  
 an input configured to receive an input datastream, and  
 a plurality of outputs, wherein  
 each of said outputs is configured to output one of a plurality of sub-streams, wherein  
 the input datastream is decomposed to form the plurality of sub-streams, **wherein**  
**said decomposing comprises placing a selected**  
**portion of the input datastream into a**  
**selected one of the plurality of outputs, and**  
**a sub-stream of said sub-streams comprises the**  
**selected portion of the input datastream,**  
 each of said sub-streams is transported over said network on a  
 corresponding one of a plurality of channels, and  
 a bandwidth of said input datastream is greater than a bandwidth  
**capacity** of any one of said channels.

25. (Original) The apparatus of claim 24, wherein each of said channels is an optical channel.
26. (Previously Presented) The apparatus of claim 25, wherein each of said optical channels corresponds to a wavelength.
27. **(Currently Amended)** The apparatus of claim 24, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth capacity of said corresponding one of said channels.
28. (Previously Presented) The apparatus of claim 24, further comprising a second sub-stream management device, comprising  
an output configured to output a reconstructed output datastream, and  
a plurality of inputs, wherein  
each of said inputs is configured to receive one of said sub-streams;  
and  
an underlying network infrastructure, communicatively coupled to said first and said second sub-stream management devices, and comprising said channels.
29. (Original) The apparatus of claim 28, further comprising  
a first protocol processor, coupled to said input; and  
a second protocol processor, coupled to said output.
30. **(Currently Amended)** An apparatus for transporting information over a network comprising:  
a first sub-stream management device, comprising  
an output configured to output a reconstructed output datastream, and  
a plurality of inputs, wherein  
each of said inputs is configured to receive one of a plurality of sub-streams,  
said sub-streams are created by decomposing an input datastream into said sub-streams, wherein

**said decomposing comprises placing a selected portion of the input datastream into a selected one of a plurality of channels, and a sub-stream of said sub-streams comprises the selected portion of the input datastream,**

each of said sub-streams is transported over said network on **the** **[[a]]** **selected corresponding** one of **the** **[[a]]** plurality of channels, and

a bandwidth of said input datastream is greater than a bandwidth **capacity** of any one of said channels.

31. (Original) The apparatus of claim 30, wherein each of said channels is an optical channel.
32. (Previously Presented) The apparatus of claim 31, wherein each of said optical channels corresponds to a wavelength.
33. (Currently Amended) The apparatus of claim 30, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth **capacity** of said corresponding one of said channels.
34. (Previously Presented) The apparatus of claim 30, further comprising a second sub-stream management device, comprising an input configured to receive said input datastream, and a plurality of outputs, wherein each of said outputs is configured to output one of said sub-streams; and an underlying network infrastructure, communicatively coupled to said first and said second sub-stream management devices, and comprising said channels.
35. (Original) The apparatus of claim 34, further comprising a first protocol processor, coupled to said input; and a second protocol processor, coupled to said output.

36. (New) The method of Claim 1 wherein selecting the selected one of a plurality of channels comprises:

using a simple round-robin technique to choose an available one of the plurality of channels.

37. (New) The apparatus of Claim 24 wherein selecting the selected one of the plurality of outputs comprises:

using a simple round-robin technique to choose an available one of the plurality of outputs.